PROGRESS REPORT #7

NMC No. 0203 NAS 5-21772

August 1973

TITLE: To Develop a Land Use - Peak Runoff Classification System for Highway Engineering Purpose.

PROBLEMS

1. The U-2 Underflights scheduled for late July and early August were canceled because of the weather.

ACCOMPLISHMENTS

1. A U--2 Underflight taken along the Maine Coast on 24 March 1973, although partially obscurred by cirrus clouds, was very useful. Various stages of lake break-up in a 40-mile wide band along the coast are being analyzed at the present time. The photography, both RC-10 and 70 mm, are excellent for mapping water storage areas, including both ponds and swamps.

2. The 3 June 1973 Underflight coverage has been received. This material has not been completely evaluated as yet.

3. A practical land use-peak runoff classification system for RC-10 (1:125,000) photography has been completed. A similar system for 1:500,000 is in the process of being formulated.

4. A 1:1,000,000 mosaic of the State of Maine has been assembled. A print of the mosaic has been forwarded to Mr. Boeckel. ERTS-1 imagery obtained on 10, 11 and 27 February 1973 was used for the map. Prints will be distributed to a number of State Agencies to stimulate interest in utilizing available ERTS imagery and underflight photography by their respective departments.

5. The Departments of Forestry, Inland Fisheries and Game, Sea and Shore Fisheries, Geological Survey and Coastal Planning are definitely interested. Coastal Planning has used RC-10 photography to up-date a land use study made from 1966 conventional photography. A Geological Survey field party is using 1:250,000 enlargements of ERTS-1 imagery in a stratigraphy study in Western Maine. It is anticipated that other agencies will utilize the land use classification systems presently being formulated by the writer.

PLANNED FOR NEXT PERIOD

1. To map land use in two 200-square mile study areas based on the two classification systems referred to in Item 3 above.

2. To field check the land use maps and modify the two classification systems based on the visual interpretation of 1:125,000 and 1:500,000 photography. The suitability of each of the Vinten film types will be evaluated.

3. Based on results of the above studies a tentative land use classification system for ERTS imagery will be formulated.